

IN THE CLAIMS

Please cancel claims 2, 18, and 22-25, amend claims 1, 15, and 20, and add new claims 32-35 as follows:

1. (CURRENTLY AMENDED) A method for remotely communicating with a Broadband modem, comprising:
 - detecting a communication error on a Broadband modem;
 - establishing a Plain Old Telephone System (POTS) connection between said Broadband modem and a remote server; and
 - communicating with said remote server via said POTS connection using Dual-Tone Multi-Frequency (DTMF) tones[.];
 - wherein said detecting comprises detecting that a Broadband circuit cannot be provisioned over a twisted pair connected to said Broadband modem.
2. (CANCELED)
3. (ORIGINAL) The method of claim 1, wherein said communicating comprises:
 - transmitting information associated with said communication error to said remote sever via said POTS connection using DTMF tones; and
 - receiving a diagnosis from said remote server via said POTS connection in DTMF tones.
4. (ORIGINAL) The method of claim 3, further comprising transmitting said diagnosis to a client computer.
5. (ORIGINAL) The method of claim 1, wherein said transmitting comprises communicating diagnosis information in the form of a Web-page from a Web-server on the Broadband modem to a client computer's Web-browser.
6. (ORIGINAL) The method of claim 1, wherein said detecting step comprises detecting that a Digital Subscriber Line (DSL) tone does not exist on a twisted pair connected to said Broadband modem.

7. (ORIGINAL) The method of claim 1, wherein said detecting step comprises determining that said Broadband modem cannot synchronize with a Digital Subscriber Line Access Multiplexor (DSLAM).

8. (ORIGINAL) The method of claim 1, wherein said detecting step comprises determining that a Permanent Virtual Circuit (PVC) cannot be established from said Broadband modem.

9. (ORIGINAL) The method of claim 1, further comprising, before said detecting step, the step of detecting POTS service.

10. (ORIGINAL) The method of claim 1, further comprising acquiring an identifier from a user of said Broadband modem.

11. (ORIGINAL) The method of claim 1, further comprising, before said establishing step, the step of ascertaining that new information associated with said communication error has not yet been sent to said remote server.

12. (ORIGINAL) The method of claim 1, further comprising, before said establishing step, the step of ascertaining that a Broadband circuit has not been provisioned within a predetermined time.

13. (ORIGINAL) The method of claim 1, wherein said communicating comprises sending information associated with communication error to said diagnostic server, where said information is selected from a group consisting of: a serial number of said Broadband modem, a hardware version of said Broadband modem, a software version of said Broadband modem, an identifier acquired from a user of said Broadband modem, Digital Subscriber Line (DSL) tone information, Digital Subscriber Line Access Multiplexor (DSLAM) connectivity information, Virtual Circuit connectivity information, Internet Protocol connectivity information, and any combination of the aforementioned.

14. (ORIGINAL) The method of claim 1, wherein said communicating comprises:
transmitting a request for configuration details to said remote server via said POTS connection using DTMF tones;
receiving said configuration details from said remote server via said POTS connection in DTMF tones; and
configuring said Broadband modem using said configuration details.

15. (CURRENTLY AMENDED) A system for remotely diagnosing a Broadband modem, comprising:
a telephone company central office coupled to both a data network and a Public Switched Telephone Network (PSTN);
a Broadband modem coupled to said telephone company central office via a telephone line, where said Broadband modem is configured to communicate data and Dual-Tone Multi-Frequency (DTMF) tones over said telephone line; and
a remote server coupled to said PSTN, where said remote server is configured to communicate with said Broadband modem using DTMF tones[.];

wherein said Broadband modem comprises the following components:

a Central Processing Unit (CPU);

communications circuitry;

a DTMF transceiver;

a memory, comprising:

DTMF protocol procedures;

remote procedures; and

Digital Subscriber Line (DSL) service configuration procedures; and

a bus connecting the aforesaid components.

16. (ORIGINAL) The system of claim 15, wherein said telephone company central office comprises a Digital Subscriber Line Access Multiplexor (DSLAM) coupled to the data network.

17. (ORIGINAL) The system of claim 16, wherein said telephone company central office further comprises:

another Broadband modem coupled between the DSLAM and the Broadband modem; and
a Plain Old Telephone System (POTS) switch coupled to the PSTN.

18. (CANCELED)

19. (ORIGINAL) The system of claim 15, wherein said remote procedures comprise:
Plain Old Telephone System (POTS) dial-tone detection procedures; and
Digital Subscriber Line (DSL) tone detection procedures.

20. (CURRENTLY AMENDED) The system of claim ~~[[18]]~~ 15, wherein said DSL service
configuration procedures comprise:

Digital Subscriber Line Access Multiplexor (DSLAM) synchronization procedures;
Permanent Virtual Circuit (PVC) connectivity procedures; and
Internet Protocol (IP) connectivity procedures.

21. (ORIGINAL) The system of claim 15, wherein said Broadband modem comprises a
Web-server and Web-pages.

22. (CANCELED)

23. (CANCELED)

24. (CANCELED)

25. (CANCELED)

26. (ORIGINAL) A Broadband modem comprising the following components:
a Central Processing Unit (CPU);
communications circuitry;
a DTMF transceiver;
a memory, comprising:

Broadband communication procedures
DTMF transceiver procedures; and
a DTMF protocol; and
a bus connecting the aforesaid components.

27. (ORIGINAL) The system of claim 26, wherein said memory further comprises:
diagnostic procedures; and
Digital Subscriber Line (DSL) service configuration procedures.

28. (ORIGINAL) The system of claim 27, wherein said diagnostic procedures comprise
Plain Old Telephone System (POTS) dial-tone detection procedures.

29. (ORIGINAL) The system of claim 27, wherein said diagnostic procedures comprise
DSL-signal detection procedures.

30. (ORIGINAL) The system of claim 27, wherein said configuration procedures
comprise:

Digital Subscriber Line Access Multiplexor (DSLAM) synchronization procedures;
Permanent Virtual Circuit (PVC) connectivity procedures; and
Internet Protocol (IP) connectivity procedures.

31. (ORIGINAL) The system of claim 26, wherein said Broadband modem comprises a
Web-server and Web-pages.

32. (NEW) A system for remotely diagnosing a Broadband modem, comprising:
a telephone company central office coupled to both a data network and a Public Switched
Telephone Network (PSTN);
a Broadband modem coupled to said telephone company central office via a telephone line,
where said Broadband modem is configured to communicate data and Dual-Tone Multi-Frequency
(DTMF) tones over said telephone line; and

a remote server coupled to said PSTN, where said remote server is configured to communicate with said Broadband modem using DTMF tones;

wherein said remote server comprises:

- a Central Processing Unit (CPU);
- communications circuitry;
- a DTMF transceiver;
- a memory, comprising:
 - DTMF protocol procedures; and
 - remote procedures; and
- a bus connecting the aforesaid components.

33. (NEW) The system of claim 32, wherein said remote procedures comprise Automatic Number Identification (ANI) detection procedures.

34. (NEW) The system of claim 32, wherein said memory further comprises a user database containing previous remote session data.

35. (NEW) The system of claim 32, wherein said memory further comprises a user details.